Original Article

Psychological Effect of Workplace Violence among Nurses in a Tertiary Care Teaching Hospital of Northern India — A Cross-Sectional Study

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Abstract

Background : Workplace violence is a significant social problem and is higher in the service sector including health care delivery.

Materials and Methods : The current cross-sectional study on 290 nurses of both genders was done in 2020 at a teaching hospital, in Delhi, India. The emotional disturbances in four main domains were assessed on a five-point Likert scale for each type of violence separately if an individual had undergone more than one type of violence.

Results : The affect scores were significantly lower for male victims of physical violence than for females. One person had faced sexual violence and his total affect score was 84% of the total score. A higher mean affect score was seen among victims of bullying.

Conclusion : Workplace Violence in the healthcare sector also causes psychological effects among nurses. Hence, institutional level policies are required in place to prevent and manage WPV and its emotional effects.

Key words : Workplace Violence, Healthcare System, Nurse, Psychological Effects, Harassment, Bullying.

Workplace violence (WPV) is defined as any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the work site, by a person related to the workplace[1]. Service sector employees particularly those in the healthcare industry, often face a higher risk of WPV. This unfortunate trend highlights the vulnerability of healthcare providers to such incidents. In the health sector, the perpetrators are often patients in their care[2]. Nurses all have closer and longer patient contact and are proportionally at higher risk of WPV[3]. The higher prevalence in the health sector can be due to manpower deficit, longer duration of work, dealing with sensitive issues, resource constraints, and misinformation about disease treatment available on the internet and mass media.

Editor's Comment :

- Workplace violence is prevalent among nurses, with verbal abuse being the most common, followed by bullying and physical violence, all of which have significant psychological impacts.
- Bullying caused the highest emotional distress, while female nurses experienced greater effects from physical violence compared to males. These findings highlight the urgent need for institutional policies to prevent WPV and support affected healthcare workers.

Apart from the direct physical effects of WPV, psychological disturbances or after-effects including fear, anxiety, anger, insecurity, emotional exhaustion, suicidal thoughts, post-traumatic stress symptoms, guilt, or poor sleep quality are also seen[4]. Chronic Workplace Violence might lead to or in some cases, a single incident can trigger psychological disturbances resulting in burnout, depression, increased mental distance from one's job, feelings of negativism and reduced professional efficacy[5,6]. Various barriers to reporting WPV, especially among nurses, have been identified and these include a healthcare culture that considers WPV part of the job or routine, lack of agreement on what is a WPV, etc[7,8]. Though literature is available on the occurrence and risk factors, the psychological consequences of WPV are less commonly explored. Understanding the profound emotional aftermath of Workplace Violence is crucial for organizations to

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implement effective support systems and preventive measures as well as to improve healthcare delivery and patient satisfaction. Therefore, the present study was conducted to estimate the psychological effects of WPV among nurses in a Tertiary Care Teaching Hospital in Northern India.

Materials and Methods

A cross-sectional study was conducted in 2020 to questions from the "WPV in the health sector country case studies research instruments survey" questionnaire. The study was conducted in one of the biggest Tertiary Care Teaching Hospitals in Delhi, India which had about 2500 nurses employed at the time of the study. Both male and female nurses employed for a minimum period of 6 months in the institute were included in the study. The sample size was calculated by using the formula for proportions ie, $Z_{(1-\langle\alpha/2)}{}^2 pq/l^2$, taking p as 0.45 as the prevalence of Workplace Violence among nurses from the study conducted by Thomas, *et al*[9], in Wardha, Maharashtra in 2019, the absolute error of 6% and a non-response rate of 10%, the sample size calculated was 290. Department-wise stratified proportionate sampling was done, in which the total sample of 290 was obtained from 23 departments/strata. The samples from each strata was in proportion to the Departments share in the total population of nurses, ensuring nurses working in different duty hours were included. WPV was operationally defined as those in which all the parties involved are associated with the workplace either directly or if one of the parties is affected for being a part of the workplace. In addition to the demographic data, among the victims of WPV, the emotional trauma they faced due to physical or verbal or sexual violence and bullying was captured individually on a five-point Likert scale (0=Not at all, 1=Little bit, 2=Moderately, 3=Quite a bit and 4=Extremely). The total score for each type of violence ranged from 0-16. Data was entered in MS Excel, cleaned for errors, and analyzed using SPSS version 21.0. due to incomplete information in 7 forms only 283 were included for further analysis. Descriptive analysis (Mean ± SD, median(IQR), frequencies and percentages) was performed. The total affect scores for each type of violence and the total scores were not normally distributed when checked using kolmogrov-smirnov test and Shapiro-Wilk test. Permission to conduct the study was obtained from the Institute Ethics Committee of the hospital (IEC/VMMC/SJH/Project/2020-01/CC). Written informed consent was obtained from each study participant. Privacy and confidentiality of data was ensured.

Results

The analysis was conducted among 283 nurses of various Departments, of which the majority were females (201, 69.3%) and were in the age group of 20-29 years (126, 43.4%) followed by 27.2% in the 30-39 years age group. In the last 12 months a higher proportion were subjected to verbal violence (82, 28.3%), than bullying/ mobbing (15, 5.3%) or physical violence (12, 4.2%). One person was subjected to sexual violence.

Among the participants who faced WPV, the mean affect score was highest for bullying (Mean ± SD) followed by physical (Mean ± SD) and verbal WPV (Mean ± SD). For physical WPV, the mean affect score was significantly greater for females (12±SD) compared to males (7±SD). No such association was observed between gender and mean affect score for verbal WPV (M- 8.1, F-7.3) and bullying (M- 9.5, F-7).

The affect scores for disturbing thoughts and avoiding thoughts/talk were higher for bullying than the other forms of violence. The victims of physical and verbal WPV were more likely to be super alert or watchful and on guard while victims of bullying were more likely to avoid thinking about or talking about the violent incident or avoiding having feelings related to it compared to other affects (Table 1). There was no statistical correlation observed between age or years of experience with the total affect scores of each type of violence. Among those subjected to verbal harassment people of younger age group significantly had higher affect scores than older people. The affect scores did not differ for any other harrament across age group, gender, marital status, work experience, night or day shift work, or the type of job(permanent/ contractual)(Table 2). The average median affect score for those affected by only one(64/283), two(15/283) or three(5/283) types of violence was 8(5-11), 8.5(5.5-10.5) and 9.3 (7.8-10.5) respectively. Though the average median score increased with the number of violence this was not statistically significant.(p=0.8, Mann-Whitnet U test).

A higher proportion of victims of physical violence, (41.7%, n=5) became extremely watchful thereafter compared to victims of other forms of WPV. The majority of the physical (75%) and verbal WPV (78%) victims could not avoid thinking/talking about it. About one-fourth of physical violence and bullying victims felt extremely that everything they did was an effort. All the victims of bullying had repeated disturbing thoughts, were not able to avoid thinking about the attack and

Table 1 — *The mean affect scores for victims of each type of Violence*

Affect variables	Mean ± SD score		
	Physical (n=12)	Verbal (n=82)	Bullying (n=15)
Domain-specific total	8.5 ± 2.9	7.8 ± 3.9	9.1 ± 4.1
Repeated, disturbing memories, thoughts, or images of the attack?	1.6 ± 1.4	1.4 ±1.2	2.1 ± 1.1
Avoiding thinking about or talking about the attack or avoiding having feelings related to it?	1.7 ±1.2	1.8 ± 1.3	2.5 ± 0.9
Being "super-alert" or watchful and on guard?	2.8 ±1.2	2.5 ± 1.3	2.3 ± 1.0
Feeling like everything you did was an effort?	2.4 ±1.4	2.1 ± 1.2	2.2 ± 1.5

Table 2 — *Median affect scores across different subgroups*

Employment		Physical Violence		Verbal		Bullying	
		Frequency	Median (IQR)	Frequency	Median (IQR)	Frequency	Median (IQR)
Age	30 years and less	9	9(7-12)	47	9 (6-11)	10	5 (5-12)
	More than 30 years	3	6 (4-6)	35	6 (3-10)	5	5(5-12)
	p value*		1		**0.03**		0.2
Gender	Female	8	8.5(4.5-9.8)	57	7 (5-10)	9	8 (5-11.5)
	Male	4	11 (7-12)	25	10(6-12)	6	11.5 (5-13)
	p value*		0.2		0.35		0.31
Work experinece	5 years and below	6	10.5(5.5-12)	38	9 (5-10)	5	8 (5-11.5)
	More than 5 years	6	8.5(5.5-10)	44	7(5-11.75)	10	9.5(5-13)
	p value*		1		0.19		1
Marital status	Married / with partner	6	11(5.5-12)	53	7(5-11.5)	8	9.5(5-14.75)
	Single/Divorced/Unmarried	6	8.5(5.5-9.25)	29	9(6-10)	7	8(5-12)
	p value*		0.24		0.34		1
Night shift	Yes	10	9 (5.5-12)	63	8(5-11)	12	9.5(5-12)
	No	2	8 (6-8)	19	8 (4-11)	3	8 (5-8)
	p value*		1		0.8		1
Job type	Contractual	3	10(6-10)	8	9(5.25-10.75)	2	8(5-8)
	Permanent	9	9(5-11)	74	8(5-11)	13	8(5-12)
	p value*		0.52		0.87		1

*Mann-Whitney U test

became super alert thereafter. All the victims of physical violence and bullying/ mobbing were affected by either one of the four psychological aftereffects. About 4.8% of the verbal violence victims were not affected by any of the psychological effects assessed.

The victim of sexual harassment pretended that it never happened and did not talk about it to friends/ family/ colleagues, did not report it to any seniors, or asked for a transfer to another position. The total affect score for sexual WPV was 13.5.

Discussion

The distress caused by Workplace Violence, at the individual level, may reduce job productivity and increase burnout. This in turn will affect the entire healthcare delivery system. The findings of the study shed light on the prevalence and aftermath of Workplace Violence (WPV) among nurses in various departments. In the realm of verbal workplace violence, much like the diminished affect scores observed among males in our research, a study focusing on flight attendants revealed that males exhibited lower levels of depression[10]. Though not statistically significant, both studies involved a cohort with a higher female workforce.

In the current study, the mean score for avoidance of talk was lower at 1.7 and 1.8 for physical and verbal violence. A report on violence against doctors reported more than 60% took leave from work following WPV[11]. These factors indicate that nurses or health care workers must be made aware of the hospital policy against Workplace Violence. According to a study in Switzerland, 7.6% of the participants knew institutional policy against Workplace Violence[12]. This also reflects an untrusty working environment in the healthcare system.

A systematic review also showed that psychological effects including post-traumatic stress disorder, mental exhaustion, and emotional distress followed WPV[13]. Though bullying appears to be the lower end of the spectrum of WPV, all of its victims, faced after-effects emotionally and had the highest mean affect score(excluding sexual violence). However, the susceptibility to the after-effects of any violence is based on various factors including the vulnerability

of the victim. Though not significant, the affect scores for both physical and verbal violence were lower among people of higher age group suggesting the established fact that people handle workplace problems better as they become older. Similarly, females had lower affect scores than men in all three types of violence though not statistically significant. Though affect response is theoretically studied to differ across genders, the study by Fischer AH, *et al*[14] on large community sample[15] also in accordance with the current finding did not reveal any difference. Affect scores are statistically comparable across most of the varibles, indicating that emotional affect may differ on individual basis and is difficult to predict its determinants. Further research should be carried on to understand the degree and determinants of the psychological impact of Workplace Violence.

The lack of clear definitions for the psychological effects of violence and the violence itself including bullying, and sexual harassment have all made it difficult to identify after effects with certainty. Though conducted based on a scientific methodology, the study has its limitations. The sample size for assessing the effect of WPV was small and was initially calculated for the parent study on the prevalence of WPV. Hence, the results of subgroup analysis have to considered with caution. The interpretations of the study have to be generalized with caution as this is a single center-based study where an established Internal Complaints Committee was functioning well.

Conclusion

The differential impact of various forms of violence on psychological well-being emphasizes the need for tailored interventions. The prominence of disturbing thoughts and avoidance in bullying cases calls for targeted mental health support for these victims. The findings underscore the importance of addressing Workplace Violence comprehensively, considering both preventive measures and post-incident support systems. While the study sheds light on the negative consequences of workplace violence, it is equally important to highlight positive findings. Identifying coping mechanisms and resilience factors among those who have experienced violence could inform the development of support programs. Hence, policymaking at the institutional level should be focused on a safer environment for the prevention of WPV, the ability to cope with the effects of WPV, and to identify distress among employees/colleagues.

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Conflict of Interest : None.

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